International application No. PCT/KR2005/000828

### A. CLASSIFICATION OF SUBJECT MATTER

# IPC7 C21D 9/46

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C21D9/46, C21D9/48, C21D8/02, C21D8/08, B21B3/00, C22C38/00, C22C38/06, C22C38/14

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean Patents and applications for inventions since 1975.

Korean Utility models and applications for Utility models since 1975.

Japanese Utility models and applications for Utility models since 1975.

Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701,

Republic of Korea

Facsimile No. 82-42-472-7140

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used)
Patent and Utility Search System at KIPO.

#### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
×	JP 10-130733 A (Kawasaki Steel Co.) 19 MAY 1998 See the whole document	45 - 52
Y	JP 10-130733 A (Kawasaki Steel Co.) 19 MAY 1998 See the whole document	1-3,6,7,10-12,15,16,23 -25,28,29,32-34,37,38
Y	JP 06-017.140 A (Nippon Steel Co.) 25 JANUARY 1994 See the whole document	1-3,6,7,10-12,15,16,23 -25,28,29,32-34,37,38
Y	JP 11-199991 A (Kawasaki Steel Co.) 27 JULY 1999 See table 3	3,25,34
Y	JP 2003-253378 A (Nippon Steel Co.) 10 SEPTEMBER 2003 See claim 1	6,7,15,16,28,29,37,38
Α	KR 2003-53802 A (POSCO) 2 JULY 2003 See claim1 and table 2	41,43
P	KR 2004-58489 A (POSCO) 5 JULY 2004 See the whole document	1 - 52

	P	See the whole document	1-32	
		See the whole document		
. [2	Further	documents are listed in the continuation of Box C.	See patent family annex.	
* "A" !"E"	to be of particular relevance		the principle or theory underlying the invention	
"L" "O" "P"	L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means		"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family	
Date	<del></del>	tual completion of the international search	Date of mailing of the international search report	
		4 JULY 2005 (04.07.2005)	05 JULY 2005 (05.07.2005)	
Nar	me and ma	iling address of the ISA/KR	Authorized officer	

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## INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2005/000828

	ion). DOCUMENTS CONSIDERED TO BE RELEVANT	<del></del>
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 5,356,494 A (Kawasaki Steel Co.) 18 OCTOBER 1994 See the whole document	1 - 52
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2005/000828

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 10-130733 A	19.05.1998	None	
JP 06-017140 A	25.01.1994	None	
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		EP 0510718	28.10.1992